CUSTOMER NO.: 24737

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE HONORABLE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of) Examiner: M. TRAN
T. DUBIL, et al.)
Serial No.: 09/686,572) Art Unit: 2179)
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For: CONTROL CODES FOR PROGRAMMABLE REMOTE SUPPLIED IN XML FORMAT))) Mail Stop: Appeal Brief)
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BRIEF ON APPEAL

CERTIFICATE OF ELECTRONIC TRANSMISSION

I certify that this **BRIEF ON APPEAL** and accompanying documents in connection with U.S. Serial No. 09/686,572 is being filed on the date indicated below by electronic transmission with the United States Patent and Trademark Office via the electronic filing system (EFS-Web).

3/13/09 XIII Jun

I. STATEMENT OF REAL PARTY IN INTEREST (41.37(f))

The real party in interest for this appeal and the present application is Koninklijke Philips Electronics, N.V., the assignee of the entire interest.

II. STATEMENT OF RELATED CASES (41.37(g))

None.

III. JURISDICTIONAL STATEMENT (41.37(h))

The Board has jurisdiction under 35 U.S.C. 134(a).

The Examiner mailed a final rejection on October 14, 2008, setting a three-month shortened statutory period for response.

The time for responding to the final rejection expired on January 14, 2009. Rule 134.

A notice of appeal was filed on January 14, 2009.

The time for filing an appeal brief is two months after the filing of a notice of appeal. Bd.R. 41.37(c). The time for filing an appeal brief expires on Monday, March 16, 2009.

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V. TABLE OF AUTHORITIES (41.37(j))

None.

VI. STATUS OF AMENDMENTS (41.37(I))

Amendment After Final Rejection (Amendment G) of December 17, 2008 was entered.

VII. GROUNDS OF REJECTION TO BE REVIEWED (41.37(m))

Whether claims 4, 6, 14, 16-18, 20-22, 24-26, and 29-33 are patentable in the sense of 35 U.S.C. § 103 over Allport (US 6,104,334) as modified by Hoffberg (US 2006/0200253).

VIII. STATEMENT OF FACTS (41.37(n))

- 1. Allport discloses downloading control codes from the internet (Allport, column 8, lines 47 51).
- 2. Allport refers to using HTML for "creating screen layouts" (Allport, column 24, line 32).
- 3. Allport teaches against such a fixed, for each apparatus, display format in favor of the user custom defining the format (Allport, column 12, lines 36-41).
- 4. Allport states: The exact layout may be designed by the customer using integrated or independent software, or the layout may be chosen from a set of templates provided to the customer through the integrated software, or the layout may be fixed at the time of manufacture (Allport, column 12, lines 36-41).
- 5. Allport calls for the GUI display to be created locally by integrated software or by using independent software on a PC to define the look of the layout (Allport, column 24, lines 37-38).
- 6. Allport discloses programming the remote control via an IR keyboard and that IR command libraries can be downloaded from the internet (Allport, column 8, lines 35-48).
- 7. The so-called database code referenced in paragraph 831 of Hoffberg is referring to "VCR plus" technology, in which

time and channel data corresponding to a television program is transmitted unidirectionally from a remote to a VCR in order to program the VCR to record the corresponding program.

- 8. Although the Examiner asserts that Hoffberg, paragraph 11, is referring to the internet, it is instead referring to the German technology that is the basis for and operates like the VCR plus technology (paragraph 831).
- 9. Allport calls for the exact layout to be designed by the consumer using integrated or independent software or choosing the layout from a set of templates provided to the consumer through the integrated software or which layout may be fixed at the time of manufacture (Allport, column 12, lines 36-41).
- 10. Rather than emulating the dedicated control device, Allport has a common display format which can be used to view TV schedules, CD collection information, IR libraries, and movie details (Allport, column 25, lines 12, 26, and 27, and column 26, lines 10 and 17).
- 11. The so-called "list alternatives" screen 36a of Figures 5 and 6 of Allport referenced by the Examiner is an electronic program with a list of alternative programs to view (Allport, column 13, lines 18-45).

- 12. Allport, column 8, lines 35-48 is directed to programming the remote control via an IR keyboard and discloses that IR command libraries can be downloaded from the internet.
- 13. The database code of Hoffberg, paragraph 831, is again referring to the "VCR plus" technology in which time and channel data corresponding to a television program is transmitted unidirectionally in order to program a VCR to record the corresponding program.
- 14. Paragraphs 12 and 13 of Hoffberg relate to input devices set such as a trackball, joystick, touch pad, bar code scanner, keyboard, malfunction keys, or the like.
- 15. Column 8, lines 30-50 of Allport referenced by the Examiner suggest that the remote control can perform the functions of other remotes, but does not suggest that the remote render a control key layout that emulates a key layout of the dedicated control device.
- 16. Column 4, lines 28-40 of Allport referenced by the Examiner indicate that the described remote control has function keys which enable it to browse, select, or otherwise manipulate data related to the control of consumer devices.

- 17. Column 5, lines 50-55 of Allport referenced by the Examiner indicate that the remote control is able to gather IR command libraries for controlling other devices.
- 18. According to column 12, lines 36-41 of Allport, the customer designs the layout with internal software or a PC, or that the layouts are fixed by the manufacturer.
- 19. Paragraph 1021 of Hoffberg calls for the interface to include a maximum of eight choices per screen.
- 20. Column 8, lines 30-50 of Allport calls for the remote to be programmed using an integrated graphical symbol keyboard in which the buttons would show the actual functions they perform.
- 21. Column 8, lines 35-50 of Allport does not disclose that the remote device of Allport receives an input of the consumer appliance to be controlled.
- 22. Column 4, lines 27-40 of Allport says nothing about loading or downloading display information from the internet, nor does it disclose or fairly suggest a keypad layout corresponding to the standard remote control for the consumer appliance to be controlled.
- 23. Rather than describing a chameleon-like remote which emulates the standard remote for each appliance that it controls,

column 4, lines 27-40 and other sections of Allport describe a remote which has a "one-size fits all" display that is applicable to multiple pieces of CE equipment.

- 24. Column 23, lines 48-67 of Allport makes no suggestion of controlling a touch screen to display icons depicting a key pad layout corresponding to the standard remote control for the consumer appliance to be controlled, but rather teaches against this concept in favor of multiple custom displays, such as a cartoon icon display for children, an uncluttered display, a display with designer patterns, etc.
- 25. Allport, column 11, lines 5-55, does not address, disclose, or fairly suggest emulating the standard remote control for one or more consumer appliances.

IX. **ARGUMENT (41.37(0))**

A. Claims 4 and 6 Distinguish Patentably Over the References of Record

Claim 6 calls for a code set representative of the commands to control a state of the specified apparatus to be downloaded over the internet in a mark-up language format. Although Allport discloses downloading control codes from the internet (Allport, column 8, lines 47-51), Allport does not disclose or fairly suggest downloading these control codes in a mark-up language format. This has the advantage of enabling the user to download both the codes to control the touch screen GUI display which would typically be in a mark-up language, and the control codes to be downloaded at the same time, from the same place, and in the same language. Another advantage which is set forth on page 3, paragraph 2 of the present application is that when data is supplied in a mark-up language format, the data is independent of The Examiner references Allport's use of the destination platform. figure-text mark-up language (HTML) (Allport, column 24, lines 32-44), but this cited references refers to using HTML for "creating screen layouts" (Allport, column 24, line 32). Thus, Allport discloses using HTML for a normal screen layout creating purpose, but fails to disclose or fairly suggest that one could also use a mark-up language to download control codes.

Claim 6 further calls for the graphic user interface of the universal remote to depict the control panel of the dedicated remote corresponding to the specified apparatus. Allport teaches against such a fixed, for each apparatus, display format in favor of the user custom defining the format (Allport, column 12, lines 36-41). Specifically, Allport states:

The exact layout may be designed by the customer using integrated or independent software, or the layout may be chosen from a set of templates provided to the customer through the integrated software, or the layout may be fixed at the time of manufacture (Allport, column 12, lines 36-41).

Claim 6 further calls for providing code over the internet to control the touch screen GUI to display a graphical interface representation of the control panel of the dedicated remote of the specified apparatus. By contrast, Allport calls for the GUI display to be created locally by integrated software or by using independent software on a PC to define the look of the layout (Allport, column 24, lines 37-38). Allport does not disclose or fairly suggest downloading code to control the touch screen GUI display. Rather, as discussed above, Allport calls for the user to be able to custom define the display. Further, as shown in the various embodiments and illustrations of the PDA of Allport, Allport integrates control of numerous devices, such as TV and sound sources,

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into a common display which does not emulate the control panel of a dedicated remote control for any of the associated devices.

Claim 6 further calls for converting the mark-up language codes downloaded from the internet into appropriate IR or RF transmissions for controlling the associated apparatus. Allport discloses programming the remote control via an IR keyboard and that IR command libraries can be downloaded from the internet (Allport, column 8, lines 35-48). However, Allport makes no suggestion of converting mark-up language format downloads from the internet into control codes.

At page 6, first full paragraph of the Final Rejection, the Examiner applies Hoffberg for a very limited teaching and has misapplied Hoffberg at that. Hoffberg makes no suggestion and provides no teaching how a touch screen GUI of a remote control device should be configured. The so-called database code referenced in paragraph 831 of Hoffberg is referring to "VCR plus" technology, in which time and channel data corresponding to a television program is transmitted unidirectionally from a remote to a VCR in order to program the VCR to record the corresponding program. Although the Examiner asserts that Hoffberg, paragraph 11, is referring to the internet, it is instead referring to the German technology that is the basis for and operates like the VCR plus technology (paragraph 831). Accordingly, it is submitted that Hoffberg neither teaches that which the Examiner asserts nor cures the

shortcomings of Allport noted above. Accordingly, it is submitted that claim 6 and claim 4 dependent therefrom distinguish patentably and unobviously over the references of record.

B. Claims 14, 20, and 21 Distinguish Patentably Over the References of Record

Claim 14 calls for the control code received over the bidirectional data network to be representative of (1) commands for a selected apparatus, and (2) soft key positions and icons for control of the dedicated remote corresponding to the selected apparatus. Claim 14 further calls for rendering a graphical representation on the graphic user interface panel depicting the control keys of the dedicated remote for the selected apparatus in which graphic representation, keys, and icons for selecting the commands are in the same location as the corresponding keys and icons of the dedicated remote for the selected apparatus. In this manner, when a user switches between the universal remote and the dedicated remote, the control keys have the same position and function such that the user is not confused.

Allport not only does not suggest emulating the layout of the keys and icons of the corresponding dedicated remote, Allport teaches against such a fixed, for the selected apparatus, button layout. Nor does Allport suggest downloading the representation of keys and icons of a dedicated

apparatus over the internet. Rather, Allport calls for the exact layout to be designed by the consumer using integrated or independent software or choosing the layout from a set of templates provided to the consumer through the integrated software or which layout may be fixed at the time of manufacture (Allport, column 12, lines 36-41). Thus, Allport fails to suggest either downloading the code to control the display or providing a display which emulates the dedicated control.

Rather than emulating the dedicated control device, Allport has a common display format which can be used to view TV schedules, CD collection information, IR libraries, and movie details (Allport, column 25, lines 12, 26, and 27, and column 26, lines 10 and 17). The so-called "list alternatives" screen 36a of Figures 5 and 6 of Allport referenced by the Examiner is an electronic program with a list of alternative programs to view (Allport, column 13, lines 18-45). A selected TV show, CD, or the like is indicated by clicking on the list. It is submitted that this display format teaches against a GUI depicting the control keys and icons of the dedicated remote in the same positions for the same function.

Claim 14 calls for converting the control code from a form that is not useable on the selected apparatus to be controlled into a command that is useable by the selected apparatus. Allport, column 8, lines 35-48 is directed to programming the remote control via an IR keyboard and

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discloses that IR command libraries can be downloaded from the internet. But, because Allport does not specify in what capacity the IR command libraries are downloaded, there is no evidence or suggestion of converting control codes to commands, which commands are then converted by the transmitter into an IR or RF signal.

Hoffberg does not address graphic user interface displays of a remote nor the positioning of keys and icons for a remote control device, much less placing keys and icons in the same position and with the same function as a corresponding dedicated device. The database code of Hoffberg, paragraph 831, is again referring to the "VCR plus" technology in which time and channel data corresponding to a television program is transmitted unidirectionally in order to program a VCR to record the corresponding program. Hoffberg, paragraph 11 again refers to the German version of the VCR plus technology. Paragraphs 12 and 13 relates to input devices set such as a trackball, joystick, touch pad, bar code scanner, keyboard, malfunction keys, or the like.

Accordingly, it is submitted that Hoffberg fails to cure any of the shortcomings of Allport noted above. Accordingly, it is submitted that claim 14 and claims 20 and 21 dependent therefrom distinguish patentably and unobviously over the references of record.

C. Claim 20 Distinguishes Patentably Over the References of Record

Claim 20 calls for the language format to include a mark-up language. Neither Hoffberg nor Allport recognize nor fairly suggest that control codes for controlling a device with a remote control can or should be communicated or transferred in a mark-up language. Accordingly, it is submitted that claim 20 distinguishes patentably over the references of record.

D. Claim 16 Distinguishes Patentably Over the References of Record

Claim 16 calls for a machine-readable memory on which code is stored for rendering a control key layout that emulates a key layout of the dedicated control device for consumer electronic equipment. Column 8, lines 30-50 of Allport referenced by the Examiner suggest that the remote control can perform the functions of other remotes, but does not suggest that the remote render a control key layout that emulates a key layout of the dedicated control device. To the contrary, this section of Allport appears to suggest that the screen layouts are designable and customizable. Thus, neither Allport nor Hoffberg recognize the problem that some users encounter when the keys for performing given functions on a dedicated remote are in different locations than the keys for performing the same functions on a universal remote, nor do Allport or

Hoffberg suggest a cure for this problem. Accordingly, it is submitted that claim 16 distinguishes patentably over the references of record.

E. Claims 17, 24, 29, and 32 Distinguish Patentably Over the References of Record

Claim 17 calls for control codes which are translated into commands for the specified apparatus to be communicated in XML language format. Using a graphic format to communicate control codes is neither shown by Allport nor Hoffberg nor is it a common or recognized use of XML tags.

Further, claim 17 calls for a method in which instructions are sent for rendering icons and soft buttons which emulate control keys of a remote control for a specified apparatus. Column 4, lines 28-40 of Allport referenced by the Examiner indicate that the described remote control has function keys which enable it to browse, select, or otherwise manipulate data related to the control of consumer devices. Column 5, lines 50-55 of Allport referenced by the Examiner indicate that the remote control is able to gather IR command libraries for controlling other devices. According to column 12, lines 36-41 of Allport, the customer designs the layout with internal software or a PC, or that the layouts are fixed by the manufacturer. None of these functions of the Allport device call for rendering icons and soft buttons which emulate the

control keys of a remote control for the specified apparatus as required by claim 17. Hoffberg teaches away from depicting icons emulating a remote control for a specified apparatus. Paragraph 1021 of Hoffberg calls for the interface to include a maximum of eight choices per screen, which fails to cure the above-noted shortcomings of Allport.

Accordingly, it is submitted that claim 17 and claims 24, 29 and 32 dependent therefrom distinguish patentably and unobviously over the references of record.

F. Claims 18, 25, 26, and 30 Distinguish Patentably Over the References of Record

Claim 18 calls for providing control codes in an XML mark-up language format. Allport discloses using a mark-up language for image displays on the screen, but makes no suggestion that control codes for rendering instructions should or even could be provided in XML or other mark-up languages which are also used for graphic representations. Although Allport downloads control codes, there is no suggestion that it be done in an XML or other mark-up language. Indeed, the control codes described by Allport are not disclosed as being downloaded in conjunction with XML type downloads.

Further, claim 18 calls for downloading codes for rendering graphical representations on a GUI touch screen. In Allport, the

rendering instructions for the graphic representation on the touch screen are either preloaded in the device or custom modified or designed by the user using software resident on the remote device or through a connected PC. There is no suggestion of downloading the graphic rendering instructions over a bidirectional network to a home network.

Further, claim 18 calls for the equipment not to be preconfigured to deliver or cause delivery of its respective control code to the control device. This has the advantage that a universal remote that is not preconfigured for any device to go on-line and download all of the appropriate instructions and codes such that it can emulate the dedicated control device for a given piece of equipment. Allport appears to contemplate that the remote device will come preconfigured, but be reconfigurable at the user's option.

Hoffberg does not cure any of these shortcomings of Allport. The Examiner only cites Hoffberg for the use of a database of codes. However, as discussed above, in Hoffberg the database of codes relate to transmissions between a remote and a VCR operating in the VCR plus mode, and not to codes transmitted over a bidirectional network to a home network.

Accordingly, it is submitted that claim 18 and claims 25, 26, and 30 dependent therefrom distinguish patentably and unobviously over the references of record.

G. Claims 25 and 26 Distinguish Patentably Over the References of Record

Claim 25 calls for the database to be remote from and not a part of either the home network or a part of the CE equipment. In Hoffberg, cited by the Examiner, the database of the VCR plus system is a part of the CE equipment. Accordingly, it is submitted that claim 25 and claim 26 dependent therefrom distinguish patentably and unobviously over the references of record.

H. Claim 31 Distinguishes Patentably Over the References of Record

Claim 31 calls for the codes which are stored in the database to include a definition of a GUI display panel and soft key locations which, when rendered on a GUI display panel, display icons and buttons in the same position and with the same function as a dedicated remote for the controlled apparatus. Contrary to the Examiner's assertion, these concepts are not disclosed at column 8, lines 30-50 of Allport. Rather, this section of Allport calls for the remote to be programmed using an integrated graphical symbol keyboard in which the buttons would show the actual functions they perform. The screen layout is either factory installed or designable at the selection of the user. There is no suggestion in Allport that the display on the graphic user interface should emulate the display of the dedicated remote for a given piece of CE equipment by

placing the same icons and buttons in the same position and with the same function as on the dedicated remote. Rather, Allport sets forth a unified display which controls various equipment from the same display. Instead of suggesting a layout which emulates that of the dedicated remote, Allport teaches against such emulation in favor of what Allport appears to consider a better screen layout than that of the original dedicated remote.

Hoffberg is not cited as and does not cure this shortcoming of Allport. Accordingly, it is submitted that claim 31 and claim 22 dependent therefrom distinguish patentably and unobviously over the references of record.

I. Claim 33 Distinguishes Patentably Over the References of Record

Claim 33 calls for a processor which is programmed to receive an input indicative of a consumer appliance to be controlled. The Examiner refers the applicant to column 8, lines 35-50 of Allport. However, these lines do not disclose that the remote device of Allport receives an input of the consumer appliance to be controlled.

Claim 33 further calls for a description of the keypad layout corresponding to the standard remote control for the consumer applicance to be controlled to be retrieved via the internet. The Examiner refers the

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applicant to column 4, lines 27-40. However, this section of Allport says nothing about loading or downloading display information from the internet. Nor does this section of Allport disclose or fairly suggest a keypad layout corresponding to the standard remote control for the consumer appliance to be controlled. Rather, this section of Allport appears to be describing a remote that has custom designable and arrangeable buttons which are labeled with their function such that the same graphic user interface display can be used to control multiple different appliances whose standard controls would each have a different layout. That is, rather than describing a chameleon-like remote which emulates the standard remote for each appliance that it controls, column 4, lines 27-40 and other sections of Allport appear to be describing a remote which has a "one-size fits all" display that is applicable to multiple pieces of CE equipment.

Claim 33 further calls for the processor to control the touch screen to display icons depicting the keypad layout corresponding to the standard remote control for the consumer appliance to be controlled. The Examiner refers the applicant to column 23, lines 48-67. However, this section of Allport makes no suggestion of controlling a touch screen to display icons depicting a key pad layout corresponding to the standard remote control for the consumer appliance to be controlled. Rather, this section of Allport teaches against this concept in favor of multiple custom

displays, such as a cartoon icon display for children, an uncluttered display, a display with designer patterns, etc. This section also suggests that each user should have their own, possibly password accessed, custom designed display. That is, a given piece of consumer equipment could be controlled with the cartoon icon display by children in the family, by the minimal clutter display by older adults in the family, etc. Accordingly, it is submitted that the referenced section of Allport teaches against the present claims.

Claim 33 further calls for the universal remote to emulate the standard remote controls for one or more controlled consumer appliances. The Examiner refers the applicant to column 11, lines 5-55. However, this section of Allport, like the rest of Allport, does not address, disclose, or fairly suggest emulating the standard remote control for one or more consumer appliances. Rather, this section of Allport merely describes a help menu and its use.

Hoffberg was not cited by the Examiner as purportedly curing any of these defects of Allport. Indeed, the teaching for which the Examiner applies Hoffberg is misapplied. The Examiner references the section of Hoffberg which relates to VCR plus communications between a remote and a VCR, and asserts that for some reason, this discloses a database in communication over a bidirectional data network with a plurality of home network systems, each of which comprises at least a remote control

device. Accordingly, it is submitted that Hoffberg does not teach or fairly suggest that for which it was cited.

Accordingly, it is submitted that claim 33 distinguishes patentably and unobviously over the references of record.

J. CONCLUSION

For all of the reasons discussed above, it is respectfully submitted that claims 4, 6, 14, 16-18, 20-22, 24-26, and 29-33 distinguish patentably and unobviously over Allport as modified by Hoffberg. For all of the above reasons, a reversal of the rejections of all claims is requested.

Respectfully submitted,

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APPENDIX

X. CLAIMS SECTION (41.37(p))

1-3. (Cancelled)

- 4. (Rejected) The method of claim 6, wherein the control code comprises part of an EPG or ECG.
 - 5. (Cancelled)
- 6. (Rejected) A method of configuring and using a universal remote, the method comprising:

enabling a user to specify to a server on the internet at least one apparatus to be controlled by the universal remote which universal remote has a touch screen GUI, the server on the internet including a database of code sets, each apparatus having a corresponding dedicated remote with a control panel;

enabling the server on the internet to identify a control code corresponding to each specified apparatus and to provide the control code as data in a mark-up language format;

providing each identified control code over the internet to a home network, the mark-up language format control code including (1) a code set representative of commands to control a state of the specified apparatus and (2) code to control the touch screen GUI to display a graphical representation of the control panel of the dedicated remote of the specified apparatus including icons and soft keys;

the control code not being usable by the specified apparatus until the control code is converted into commands and transmitted to the apparatus by an IR or RF transmission independent of the internet, wherein the apparatus is not preconfigured to deliver or cause delivery of its respective control code to the control device;

enabling the universal remote to convert the control code into (1) the associated commands to control the specified apparatus and (2) the soft keys and the graphical representation of the icons on the touch screen GUI of the universal remote such that the touch screen GUI depicts the control panel of the dedicated remote corresponding to the specified apparatus;

using the soft keys of the displayed control panel on the touch screen GUI to enable the universal remote to send commands to the specified apparatus via the IR or RF transmission.

7-13. (Cancelled)

14. (Rejected) A remote control device configured for receiving a control code from a source over a bidirectional data network, the control code comprising data in a language format, the control code representative of (1) commands for a selected apparatus and (2) soft key positions and icons for control keys of a dedicated remote corresponding to the selected apparatus, the remote control device comprising:

a GUI display panel on which the soft keys and icons are rendered;

the remote control device being configured to use the control code representative of the soft key positions and icons for the control key of the dedicated remote corresponding to the selected apparatus to render a graphical representation on the GUI display panel depicting the control keys of the dedicated remote for the selected apparatus in which the keys and icons for selecting the commands for the selected apparatus are in the

same location as the corresponding keys and icons of the dedicated remote such that when a user switches between the remote control device and the dedicated remote, the control keys are in the same position and have the same function as the dedicated remote;

the remote control device being configured to convert the control code from a form that is not usable on the selected apparatus to be controlled into a command that is usable by the selected apparatus to change a state of the selected apparatus; and

a transmitter converting the at least one selected command into an IR or RF signal which is transmitted to control the selected apparatus.

15. (Cancelled)

16. (Rejected) A machine readable memory on which code is stored for controlling CE equipment and for being supplied in an XML format, the control code (1) representing an IR or RF signal for transmission by a remote control device to the CE equipment and (2) rendering a control key layout that emulates a key layout of a dedicated control device for the CE equipment.

17. (Rejected) A method comprising:

enabling each of a plurality of users to specify to a server, over a bidirectional data network, a user specified apparatus for being controlled by a universal control device of a user;

enabling the server to identify XML tags that specify control codes included in data in XML language format, the control codes being representative of control codes for controlling the user specified apparatus and sending instructions for rendering icons and soft buttons

which emulate control keys of a remote control for the specified apparatus; and

enabling the server to communicate over the bidirectional data network with a home network that comprises the user's control device for delivery of the control codes to the control device, wherein the control codes are not directly usable by the specified apparatus until conversion of the control codes by the home network into commands that can be sent by the control device to the specified apparatus independent of the bidirectional network.

18. (Rejected) A method, comprising:

providing control codes in an XML mark-up language format to a home network comprising a control device for installation on the control device, a first set of control codes with rendering instructions for rendering a graphical representation on a GUI touch screen using an XSL style sheet, and a second set of control codes representing commands suitable for transmission by the control device over an IR or RF network to a CE equipment to control the state of the CE equipment, the control codes being provided from a database over a bidirectional data network to the home network, wherein the equipment is not preconfigured to deliver or cause delivery of its respective control code to the control device.

19. (Cancelled)

20. (Rejected) The method of claim 14, wherein the language format includes a mark-up language.

- 21. (Rejected) The method of claim 14, wherein the bidirectional network includes the internet and the source is located on the internet and remote from the apparatus and the network.
- 22. (Rejected) The database of claim 31, wherein the bidirectional network includes the internet, the plurality of home networks each being connected with the internet to receive control codes requested from the database over the internet.

23. (Cancelled)

- 24. (Rejected) The method of claim 17, wherein the bidirectional network includes the internet, the user specifying the apparatus to be controlled over the internet to the server, which server is remote from and not a part of the home network or the specified apparatus, and the control code is sent via the internet to the home network to the controlled device.
- 25. (Rejected) The method of claim 18, wherein the database is remote from and not a part of the home network and not a part of the CE equipment.
- 26. (Rejected) The method of claim 25, wherein the bidirectional network includes the internet, the control codes being sent over the internet from the database to the home network.

27-28. (Cancelled)

29. (Rejected) The method of claim 17, further including:

on a touch screen GUI display element, generating a graphical representation depicting the remote control for the specified apparatus.

- 30. (Rejected) The method of claim 18, wherein wherein the rendering instructions render a graphical representation on a remote controller for the CE equipment which is to be controlled, the graphical representation being displayed on a touch screen such that the user can select among the control codes by touching the touch screen.
- 31. (Rejected) A memory for storing a database, comprising:

control codes for controlling apparatuses through remote control devices, the control codes representative of commands suitable for by the remote control devices to the apparatuses over an IR or RF network and being formatted in a mark-up language, the database being in communication over a bidirectional data network with a plurality home network systems each of which comprises at least a remote control device, the control codes being deliverable to the remote control devices independent of the controlled apparatuses, the control codes being described in XML format with XML tags which define (1) control parameters including one or more of: carrier frequency, duty cycle, protocol type, repetition type, on/off times of the signal and bit pattern of command codes and (2) at least one of: a type of the controlled apparatus and a brand name of the controlled apparatus;

wherein the control codes further include:

a definition of a GUI display panel and soft key locations which when rendered on the GUI display panel display icons and buttons in the same position and with a common function as a dedicated remote for the controlled apparatus.

32. (Rejected) The method of claim 17, wherein rendering the icons and soft buttons to emulate the control key of the remote control for the specified apparatus includes:

rendering the icon or soft button in the same relative location as the control key of the remote for the specified apparatus which performs the same function.

33. (Rejected) A universal remote control for controlling any one or more consumer appliances, each consumer appliance having a standard remote control with a corresponding key pad layout, the universal remote control comprising:

a touch screen display;

an IR or RF transmitter;

a memory;

an interface;

a processor programmed to:

receive an input indicative of a consumer appliance to be controlled.

control the interface to go via the internet to a website and retrieve (1) IR or RF control codes for the consumer appliance to be controlled and (2) a description of a key pad layout corresponding to the standard remote control for the consumer appliance to be controlled;

store the retrieved IR or RF control codes and the key pad layout description in the memory;

control the touch screen to display icons depicting the key pad layout corresponding to the standard remote control for the consumer appliance to be controlled, and

in response to one of the icons displayed on the control screen being touched, controlling the IR or RF transmitter to transmit a control code represented by the touched icons,

wherein by the universal remote control emulates the standard remote controls for one or more controlled consumer appliances.

APPENDIX (Continued)

XI. CLAIM SUPPORT AND DRAWING ANALYSIS SECTION (41.37(r))

- 4. The method of claim 6, wherein the control code comprises part of an EPG or ECG. {p. 5, l. 2-14}
- 6. A method of configuring and using a universal remote {108}, the method comprising:

enabling a user to specify to a server {102} on the internet {104} at least one apparatus to be controlled by the universal remote {108} which universal remote has a touch screen GUI {110}, the server on the internet including a database {116} of code sets, each apparatus having a corresponding dedicated remote with a control panel; {p. 2, l. 14-19; p. 4, l. 15-18; p. 6, l. 14-30}

enabling the server on the internet to identify a control code corresponding to each specified apparatus and to provide the control code as data in a mark-up language format; {p. 2, l. 16-17; p. 4, l. 19-21; p. 7, l. 1-14}

providing each identified control code over the internet to a home network, the mark-up language format control code including (1) a code set representative of commands to control a state of the specified apparatus and (2) code to control the touch screen GUI to display a graphical representation of the control panel of the dedicated remote of the specified apparatus including icons and soft keys; {p. 2, l. 19-26; p. 3, l. 24- p. 4, l. 3; p. 6, l. 4-13; p. 6, l. 22-30; p. 7, l. 1-14}

the control code not being usable by the specified apparatus until the control code is converted into commands and transmitted to the apparatus by an IR or RF transmission independent of the internet, wherein the apparatus is not preconfigured to deliver or cause delivery of its respective control code to the control device; {p. 2, l. 10-13; p. 3, l. 5 – p. 4, l. 14; p. 7, l. 1-14}

enabling the universal remote to convert the control code into (1) the associated commands to control the specified apparatus and (2) the soft keys and the graphical representation of the icons on the touch screen GUI of the universal remote such that the touch screen GUI depicts the control panel of the dedicated remote corresponding to the specified apparatus; {p. 2, l. 28 – p. 3, l. 4; p. 4, l. 8-14, 19-22; p. 7, l. 12-14}

using the soft keys of the displayed control panel on the touch screen GUI to enable the universal remote to send commands to the specified apparatus via the IR or RF transmission. {p. 4, l. 23-26; p. 7, l. 12-14}

14. A remote control device {108} configured for receiving a control code from a source over a bidirectional data network, the control code comprising data in a language format, the control code representative of (1) commands for a selected apparatus and (2) soft key positions and icons for control keys of a dedicated remote corresponding to the selected apparatus, the remote control device comprising: {p. 6, l. 14-21; p. 7, l. 1-14}

a GUI display panel {110} on which the soft keys and icons are rendered; {p. 7, l. 1-14}

the remote control device {108} being configured to use the control code representative of the soft key positions and icons for the

control key of the dedicated remote corresponding to the selected apparatus to render a graphical representation on the GUI display panel depicting the control keys of the dedicated remote for the selected apparatus in which the keys and icons for selecting the commands for the selected apparatus are in the same location as the corresponding keys and icons of the dedicated remote such that when a user switches between the remote control device and the dedicated remote, the control keys are in the same position and have the same function as the dedicated remote; {p.

2, l. 21 - p. 3, l. 14; p. 7, l. 15-29

the remote control device {108} being configured to convert the control code from a form that is not usable on the selected apparatus to be controlled into a command that is usable by the selected apparatus to change a state of the selected apparatus; and {p. 4, l. 4-14; p. 7, l. 9-14}

a transmitter {112} converting the at least one selected command into an IR or RF signal which is transmitted to control the selected apparatus. {p. 6, l. 4-30}

16. A machine readable memory {116} on which code is stored for controlling CE equipment and for being supplied in an XML format, the control code (1) representing an IR or RF signal for transmission by a remote control device to the CE equipment and (2) rendering a control key layout that emulates a key layout of a dedicated control device for the CE equipment. {p. 2, l. 1-9; p. 2, l. 14 – p. 3, l. 2; p. 3, l. 19-23}

17. A method comprising:

enabling each of a plurality of users to specify to a server, over a bidirectional data network {104}, a user specified apparatus for

being controlled by a universal control device {108} of a user; {p. 1, 1. 24 - p. 2, 1. 9; p. 2, 1. 16-17}

enabling the server to identify XML tags that specify control codes included in data in XML language format, the control codes being representative of control codes for controlling the user specified apparatus and sending instructions for rendering icons and soft buttons which emulate control keys of a remote control for the specified apparatus; and {p. 2, l. 6-30}

enabling the server to communicate over the bidirectional data network with a home network that comprises the user's control device for delivery of the control codes to the control device, wherein the control codes are not directly usable by the specified apparatus until conversion of the control codes by the home network into commands that can be sent by the control device to the specified apparatus independent of the bidirectional network. {p. 2, l. 10-14; p. 3, l. 5-12; p. 3, l. 19 – p. 4, l. 3; p. 6, l. 4-13; p. 6, l. 22-30}

18. A method, comprising:

providing control codes in an XML mark-up language format to a home network comprising a control device {108} for installation on the control device, a first set of control codes with rendering instructions for rendering a graphical representation on a GUI touch screen using an XSL style sheet, and a second set of control codes representing commands suitable for transmission by the control device over an IR or RF network to a CE equipment to control the state of the CE equipment, the control codes being provided from a database {116} over a bidirectional data network {104} to the home network, wherein the equipment is not pre-configured to deliver or cause delivery of its

respective control code to the control device. {p. 1, l. 24 – p. 2, l. 9; p. 2. l. 14-30; p. 3, l. 19 – p. 4, l. 3; p. 6, l. 4-13; p. 6, l. 22-30}

- 20. The method of claim 14, wherein the language format includes a mark-up language. {p. 2, l. 14-16}
- 21. The method of claim 14, wherein the bidirectional network includes the internet {104} and the source is located on the internet and remote from the apparatus and the network. {p. 2, l. 3-5, p. 3, l. 9-12; p. 3, l. 20-23; p. 6, l. 14-16}
- 22. The database of claim 31, wherein the bidirectional network includes the internet {104}, the plurality of home networks each being connected with the internet to receive control codes requested from the database over the internet. {p. 2, l. 3-5; p. 3, l. 9-12; p. 3, l. 20-23; p. 6, l. 14-16}
- 24. The method of claim 17, wherein the bidirectional network includes the internet {104}, the user specifying the apparatus to be controlled over the internet to the server {102}, which server is remote from and not a part of the home network or the specified apparatus, and the control code is sent via the internet to the home network to the controlled device. {p. 2, l. 3-5; p. 3, l. 9-12; p. 3, l. 20-23; p. 6, l. 14-16}
- 25. The method of claim 18, wherein the database {116} is remote from and not a part of the home network and not a part of the CE equipment. {p. 2, l. 3-5; p. 3, l. 9-12; p. 3, l. 20-23; p. 6, l. 14-16}

- 26. The method of claim 25, wherein the bidirectional network includes the internet {104}, the control codes being sent over the internet from the database to the home network. {p. 2, l. 3-5; p. 3, l. 9-12; p. 3, l. 20-23; p. 6, l. 14-16}
 - 29. The method of claim 17, further including:

on a touch screen GUI display element {110}, generating a graphical representation depicting the remote control for the specified apparatus. {p. 2, l. 19-30; p. 4, l. 20-26}

- 30. The method of claim 18, wherein wherein the rendering instructions render a graphical representation on a remote controller for the CE equipment which is to be controlled, the graphical representation being displayed on a touch screen such that the user can select among the control codes by touching the touch screen. {p. 2, l. 19-30; p. 4, l. 7-26}
 - 31. A memory for storing a database {116}, comprising:

control codes for controlling apparatuses through remote control devices, the control codes representative of commands suitable for by the remote control devices to the apparatuses over an IR or RF network and being formatted in a mark-up language, the database being in communication over a bidirectional data network with a plurality home network systems each of which comprises at least a remote control device, the control codes being deliverable to the remote control devices independent of the controlled apparatuses, the control codes being described in XML format with XML tags which define (1) control parameters including one or more of: carrier frequency, duty cycle, protocol type, repetition type, on/off times of the signal and bit pattern of

command codes and (2) at least one of: a type of the controlled apparatus and a brand name of the controlled apparatus; {p. 2, l. 1-13; p. 3, l. 13 – p. 4, l. 3; p. 4, l. 23-26; p. 6, l. 22-30}

wherein the control codes further include:

a definition of a GUI display panel and soft key locations which when rendered on the GUI display panel display icons and buttons in the same position and with a common function as a dedicated remote for the controlled apparatus. **{p. 2, l. 14-30}**

32. The method of claim 17, wherein rendering the icons and soft buttons to emulate the control key of the remote control for the specified apparatus includes:

rendering the icon or soft button in the same relative location as the control key of the remote for the specified apparatus which performs the same function. {p. 2, l. 14-30; p. 4, l. 23-26; p. 7, l. 8-14}

33. A universal remote control for controlling any one or more consumer appliances, each consumer appliance having a standard remote control with a corresponding key pad layout, the universal remote control comprising:

a touch screen display; {110; p. 6, l. 16-17} an IR or RF transmitter; {112; p. 6, l. 17-21} a memory; {120; p. 7, l. 10-12} an interface; {114; p. 6, l. 20-21} a processor programmed to:

receive an input indicative of a consumer appliance to be controlled, {p. 3, l. 16-17; p. 4, l. 15-17}

control the interface to go via the internet to a website and retrieve (1) IR or RF control codes for the consumer appliance to be

controlled and (2) a description of a key pad layout corresponding to the standard remote control for the consumer appliance to be controlled; $\{p. 2, l. 1-9; p. 2, l. 19 - p. 3, l. 4; p. 3, l. 24 - p. 4, l 14\}$

store the retrieved IR or RF control codes and the key pad layout description in the memory; {p. 2, l. 4-6; p. 7, l. 10-12}

control the touch screen to display icons depicting the key pad layout corresponding to the standard remote control for the consumer appliance to be controlled, and {p. 2, l. 28-30; p. 4, l. 17-23}

in response to one of the icons displayed on the control screen being touched, controlling the IR or RF transmitter to transmit a control code represented by the touched icons, {p. 4, l. 23-26}

wherein by the universal remote control emulates the standard remote controls for one or more controlled consumer appliances.

{p. 2, l. 11-27; p. 3, l. 20-23; p. 4, l. 15-18; p. 4, l. 27-30; p. 6, l. 17-20}

APPENDIX (Continued)

XII. MEANS OR STEP PLUS FUNCTION ANALYSIS SECTION (41.37(s))

- 4. The method of claim 6, wherein the control code comprises part of an EPG or ECG. {p. 5, l. 2-14}
- 6. A method of configuring and using a universal remote {108}, the method comprising:

enabling a user to specify to a server {102} on the internet {104} at least one apparatus to be controlled by the universal remote {108} which universal remote has a touch screen GUI {110}, the server on the internet including a database {116} of code sets, each apparatus having a corresponding dedicated remote with a control panel; {p. 2, l. 14-19; p. 4, l. 15-18; p. 6, l. 14-30}

enabling the server on the internet to identify a control code corresponding to each specified apparatus and to provide the control code as data in a mark-up language format; {p. 2, l. 16-17; p. 4, l. 19-21; p. 7, l. 1-14}

providing each identified control code over the internet to a home network, the mark-up language format control code including (1) a code set representative of commands to control a state of the specified apparatus and (2) code to control the touch screen GUI to display a graphical representation of the control panel of the dedicated remote of the specified apparatus including icons and soft keys; {p. 2, l. 19-26; p. 3, l. 24- p. 4, l. 3; p. 6, l. 4-13; p. 6, l. 22-30; p. 7, l. 1-14}

the control code not being usable by the specified apparatus until the control code is converted into commands and transmitted to the apparatus by an IR or RF transmission independent of the internet, wherein the apparatus is not preconfigured to deliver or cause delivery of its respective control code to the control device; {p. 2, l. 10-13; p. 3, l. 5 – p. 4, l. 14; p. 7, l. 1-14}

enabling the universal remote to convert the control code into (1) the associated commands to control the specified apparatus and (2) the soft keys and the graphical representation of the icons on the touch screen GUI of the universal remote such that the touch screen GUI depicts the control panel of the dedicated remote corresponding to the specified apparatus; {p. 2, l. 28 – p. 3, l. 4; p. 4, l. 8-14, 19-22; p. 7, l. 12-14}

using the soft keys of the displayed control panel on the touch screen GUI to enable the universal remote to send commands to the specified apparatus via the IR or RF transmission. {p. 4, l. 23-26; p. 7, l. 12-14}

14. A remote control device {108} configured for receiving a control code from a source over a bidirectional data network, the control code comprising data in a language format, the control code representative of (1) commands for a selected apparatus and (2) soft key positions and icons for control keys of a dedicated remote corresponding to the selected apparatus, the remote control device comprising: {p. 6, l. 14-21; p. 7, l. 1-14}

a GUI display panel {110} on which the soft keys and icons are rendered; {p. 7, l. 1-14}

the remote control device {108} being configured to use the control code representative of the soft key positions and icons for the

control key of the dedicated remote corresponding to the selected apparatus to render a graphical representation on the GUI display panel depicting the control keys of the dedicated remote for the selected apparatus in which the keys and icons for selecting the commands for the selected apparatus are in the same location as the corresponding keys and icons of the dedicated remote such that when a user switches between the remote control device and the dedicated remote, the control keys are in the same position and have the same function as the dedicated remote; {p.

2, l. 21 - p. 3, l. 14; p. 7, l. 15-29

the remote control device {108} being configured to convert the control code from a form that is not usable on the selected apparatus to be controlled into a command that is usable by the selected apparatus to change a state of the selected apparatus; and {p. 4, l. 4-14; p. 7, l. 9-14}

a transmitter {112} converting the at least one selected command into an IR or RF signal which is transmitted to control the selected apparatus. {p. 6, l. 4-30}

16. A machine readable memory {116} on which code is stored for controlling CE equipment and for being supplied in an XML format, the control code (1) representing an IR or RF signal for transmission by a remote control device to the CE equipment and (2) rendering a control key layout that emulates a key layout of a dedicated control device for the CE equipment. {p. 2, l. 1-9; p. 2, l. 14 – p. 3, l. 2; p. 3, l. 19-23}

17. A method comprising:

enabling each of a plurality of users to specify to a server, over a bidirectional data network {104}, a user specified apparatus for

being controlled by a universal control device {108} of a user; {p. 1, 1. 24 - p. 2, 1. 9; p. 2, 1. 16-17}

enabling the server to identify XML tags that specify control codes included in data in XML language format, the control codes being representative of control codes for controlling the user specified apparatus and sending instructions for rendering icons and soft buttons which emulate control keys of a remote control for the specified apparatus; and {p. 2, l. 6-30}

enabling the server to communicate over the bidirectional data network with a home network that comprises the user's control device for delivery of the control codes to the control device, wherein the control codes are not directly usable by the specified apparatus until conversion of the control codes by the home network into commands that can be sent by the control device to the specified apparatus independent of the bidirectional network. {p. 2, l. 10-14; p. 3, l. 5-12; p. 3, l. 19 – p. 4, l. 3; p. 6, l. 4-13; p. 6, l. 22-30}

18. A method, comprising:

providing control codes in an XML mark-up language format to a home network comprising a control device {108} for installation on the control device, a first set of control codes with rendering instructions for rendering a graphical representation on a GUI touch screen using an XSL style sheet, and a second set of control codes representing commands suitable for transmission by the control device over an IR or RF network to a CE equipment to control the state of the CE equipment, the control codes being provided from a database {116} over a bidirectional data network {104} to the home network, wherein the equipment is not pre-configured to deliver or cause delivery of its

respective control code to the control device. {p. 1, l. 24 – p. 2, l. 9; p. 2. l. 14-30; p. 3, l. 19 – p. 4, l. 3; p. 6, l. 4-13; p. 6, l. 22-30}

- 20. The method of claim 14, wherein the language format includes a mark-up language. {p. 2, l. 14-16}
- 21. The method of claim 14, wherein the bidirectional network includes the internet {104} and the source is located on the internet and remote from the apparatus and the network. {p. 2, l. 3-5, p. 3, l. 9-12; p. 3, l. 20-23; p. 6, l. 14-16}
- 22. The database of claim 31, wherein the bidirectional network includes the internet {104}, the plurality of home networks each being connected with the internet to receive control codes requested from the database over the internet. {p. 2, l. 3-5; p. 3, l. 9-12; p. 3, l. 20-23; p. 6, l. 14-16}
- 24. The method of claim 17, wherein the bidirectional network includes the internet {104}, the user specifying the apparatus to be controlled over the internet to the server {102}, which server is remote from and not a part of the home network or the specified apparatus, and the control code is sent via the internet to the home network to the controlled device. {p. 2, l. 3-5; p. 3, l. 9-12; p. 3, l. 20-23; p. 6, l. 14-16}
- 25. The method of claim 18, wherein the database {116} is remote from and not a part of the home network and not a part of the CE equipment. {p. 2, l. 3-5; p. 3, l. 9-12; p. 3, l. 20-23; p. 6, l. 14-16}

- 26. The method of claim 25, wherein the bidirectional network includes the internet {104}, the control codes being sent over the internet from the database to the home network. {p. 2, l. 3-5; p. 3, l. 9-12; p. 3, l. 20-23; p. 6, l. 14-16}
 - 29. The method of claim 17, further including:

on a touch screen GUI display element {110}, generating a graphical representation depicting the remote control for the specified apparatus. {p. 2, l. 19-30; p. 4, l. 20-26}

- 30. The method of claim 18, wherein wherein the rendering instructions render a graphical representation on a remote controller for the CE equipment which is to be controlled, the graphical representation being displayed on a touch screen such that the user can select among the control codes by touching the touch screen. {p. 2, l. 19-30; p. 4, l. 7-26}
 - 31. A memory for storing a database {116}, comprising:

control codes for controlling apparatuses through remote control devices, the control codes representative of commands suitable for by the remote control devices to the apparatuses over an IR or RF network and being formatted in a mark-up language, the database being in communication over a bidirectional data network with a plurality home network systems each of which comprises at least a remote control device, the control codes being deliverable to the remote control devices independent of the controlled apparatuses, the control codes being described in XML format with XML tags which define (1) control parameters including one or more of: carrier frequency, duty cycle, protocol type, repetition type, on/off times of the signal and bit pattern of

command codes and (2) at least one of: a type of the controlled apparatus and a brand name of the controlled apparatus; {p. 2, l. 1-13; p. 3, l. 13 – p. 4, l. 3; p. 4, l. 23-26; p. 6, l. 22-30}

wherein the control codes further include:

a definition of a GUI display panel and soft key locations which when rendered on the GUI display panel display icons and buttons in the same position and with a common function as a dedicated remote for the controlled apparatus. {p. 2, l. 14-30}

32. The method of claim 17, wherein rendering the icons and soft buttons to emulate the control key of the remote control for the specified apparatus includes:

rendering the icon or soft button in the same relative location as the control key of the remote for the specified apparatus which performs the same function. {p. 2, l. 14-30; p. 4, l. 23-26; p. 7, l. 8-14}

33. A universal remote control for controlling any one or more consumer appliances, each consumer appliance having a standard remote control with a corresponding key pad layout, the universal remote control comprising:

a touch screen display; {110; p. 6, l. 16-17} an IR or RF transmitter; {112; p. 6, l. 17-21} a memory; {120; p. 7, l. 10-12} an interface; {114; p. 6, l. 20-21} a processor programmed to:

receive an input indicative of a consumer appliance to be controlled, {p. 3, l. 16-17; p. 4, l. 15-17}

control the interface to go via the internet to a website and retrieve (1) IR or RF control codes for the consumer appliance to be

controlled and (2) a description of a key pad layout corresponding to the standard remote control for the consumer appliance to be controlled; $\{p. 2, l. 1-9; p. 2, l. 19 - p. 3, l. 4; p. 3, l. 24 - p. 4, l 14\}$

store the retrieved IR or RF control codes and the key pad layout description in the memory; {p. 2, l. 4-6; p. 7, l. 10-12}

control the touch screen to display icons depicting the key pad layout corresponding to the standard remote control for the consumer appliance to be controlled, and {p. 2, l. 28-30; p. 4, l. 17-23}

in response to one of the icons displayed on the control screen being touched, controlling the IR or RF transmitter to transmit a control code represented by the touched icons, {p. 4, l. 23-26}

wherein by the universal remote control emulates the standard remote controls for one or more controlled consumer appliances.

{p. 2, l. 11-27; p. 3, l. 20-23; p. 4, l. 15-18; p. 4, l. 27-30; p. 6, l. 17-20}

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APPENDIX (Continued)

XIII. EVIDENCE SECTION (41.37(t))

Not applicable.

APPENDIX (Continued)

XIV. RELATED CASES SECTION (41.37(u))

None.

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